

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please cancel claims 1-19, 22 and 47-53 without prejudice or disclaimer.

Please rewrite claims 23-28 as follows.

Please add new claim 54 as follows.

Listing of Claims:

Claims 1-19: (canceled)

20. (withdrawn) A lithium secondary cell comprising:

a cell case, and

an electrode body provided with a positive electrode made of a positive electrode active material and a negative electrode made of a negative electrode active material contained in the cell case, wound or laminated with a separator inserted in between and impregnated with a non-aqueous electrolyte made of a lithium compound dissolved into an organic solvent,

wherein when said non-aqueous electrolyte or said organic solvent is dropped onto said separator and a contact angle measured immediately after the dropping is θ_1 and a contact angle measured 15 minutes after the dropping is θ_2 , said separator and said non-aqueous electrolyte or said organic solvent satisfy a relation expressed in the following Expression (11).

$$(\theta_1 - \theta_2) / \theta_1 > 0.4 \quad \dots (11)$$

21. (withdrawn) The lithium secondary cell according to claim 20, wherein the contact angle measured immediately after said dropping is 60° or less.

Claim 22: (canceled)

23. (currently amended) The lithium secondary cell according to claim ~~22~~54, wherein said penetration rate is ~~equal to or more than~~ at least 2 mg/min·cm².

24. (currently amended) The lithium secondary cell according to claim ~~22~~54, wherein said penetration rate is ~~equal to or more than~~ at least 50 mg/min·cm².

25. (currently amended) The lithium secondary cell according to claim ~~20~~54, wherein the ~~a~~ material of said separator is an olefin resin.

26. (currently amended) The lithium secondary cell according to claim ~~20~~54, wherein ~~the a~~ material of said separator is substantially cellulose or a cellulose derivative or a paper ~~made of~~ comprising a mixture of ~~these materials~~ cellulose and a cellulose derivative.

27. (currently amended) The lithium secondary cell according to claim ~~22~~54, wherein ~~the a~~ material of said separator is a nonwoven fabric textile ~~made of~~ comprising a fabric polyolefin, and said penetration rate is 2 to 30000 mg/min·cm².

28. (currently amended) The lithium secondary cell according to claim 2254, wherein ~~the~~ a material of said separator is a nonwoven fabric textile ~~made of~~ comprising a fabric polyolefin, and said penetration rate is 50 to 5000 mg/min·cm².

29. (withdrawn) A lithium secondary cell comprising:
a cell case, and
an electrode body provided with a positive electrode made of a positive electrode active material and a negative electrode made of a negative electrode active material contained in the cell case, wound or laminated with a separator inserted in between and impregnated with a non-aqueous electrolyte made of a lithium compound dissolved into an organic solvent,

wherein the material of said separator is a nonwoven fabric textile made of fabric polyolefin and the density of said separator is 0.4 to 0.85 g/ml.

30. (withdrawn) The lithium secondary cell according to claim 29, wherein said density is 0.6 to 0.8 g/ml.

31. (withdrawn) The lithium secondary cell according to claim 29, wherein the thickness of said separator is 5 to 50 μm.

32. (withdrawn) The lithium secondary cell according to claim 29, wherein said separator is obtained by compressing said nonwoven fabric textile.

33. (withdrawn) The lithium secondary cell according to claim 29, wherein said nonwoven fabric textile is mixed with an electrical insulating inorganic or organic substance.
34. (withdrawn) The lithium secondary cell according to claim 33, wherein said nonwoven fabric textile is mixed with said inorganic or organic substance and then compressed.
35. (withdrawn) The lithium secondary cell according to claim 32, wherein the weighing capacity of said nonwoven fabric textile before the compression is 5 to 30 g/m².
36. (withdrawn) The lithium secondary cell according to claim 33, wherein said inorganic substance is an oxide and/or carbonate.
37. (withdrawn) The lithium secondary cell according to claim 33, wherein said inorganic substance is at least one type selected from a group of alumina, calcia, magnesia, calcium carbonate, magnesium carbonate and zeolite.
38. (withdrawn) The lithium secondary cell according to claim 33, wherein said organic substance is at least one type selected from a group of methyl cellulose derivative, fluorine-based high polymer and rubber.

39. (withdrawn) The lithium secondary cell according to claim 33, wherein said organic substance is at least one type selected from a group of carboxymethyl cellulose (CMC), polytetrafluoroethylene (PTFE), polyvinylidene fluoride (PVDF) and styrene-butadiene rubber (SBR).

40. (withdrawn) The lithium secondary cell according to claim 20, wherein said lithium compound is LiPF_6 .

41. (withdrawn) The lithium secondary cell according to claim 20, wherein said organic solvent is a mixed solvent of ring-shaped carbonate and chain-shaped carbonate.

42. (withdrawn) The lithium secondary cell according to claim 20, wherein said positive electrode active material is a lithium manganate having a cubic system spinel structure whose main components are Li and Mn.

43. (withdrawn) The lithium secondary cell according to claim 20, wherein the capacity of the cell is 2 Ah or more.

44. (withdrawn) The lithium secondary cell according to claim 20, which is to be mounted on a vehicle.

45. (withdrawn) The lithium secondary cell according to claim 44, which is to be used for an electric vehicle or hybrid electric vehicle.

46. (withdrawn) The lithium secondary cell according to claim 44, which is to be used to start an engine.

Claims 47-53: (canceled)

54. (new) A lithium secondary cell, comprising:

a cell case;

an electrode body contained in the cell case and including a positive electrode, a negative electrode, and a separator positioned between the positive and the negative electrodes, wherein the positive electrode, the negative electrode and the separator are wound or laminated together; and

a non-aqueous electrolyte impregnating the electrode body and including a lithium compound dissolved in an organic solvent including a composition having at least one ring-shaped carbonate and at least two chain-shaped carbonates,

wherein a capacity of said lithium secondary cell is at least 2 Ah, and a ratio of a limit discharging current to said cell capacity is at least 30, and wherein a penetration rate of said non-aqueous electrolyte or said organic solvent through said separator per unit time and per unit area is at least $0.25 \text{ mg/min}\cdot\text{cm}^2$, said penetration rate being expressed with a gradient of regression line formed by at least two measured amounts

of said non-aqueous electrolyte or said organic solvent having passed through the separator over at least two time intervals.